

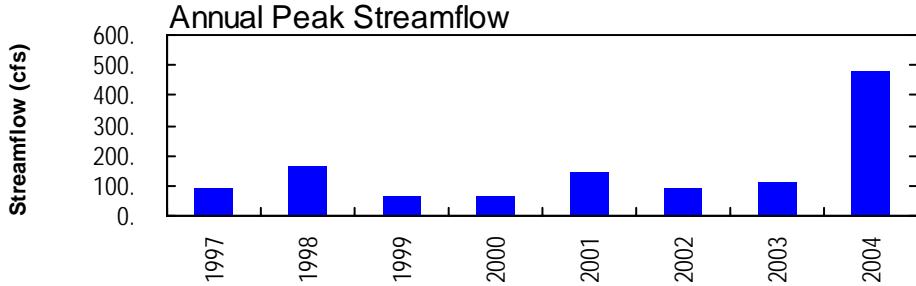
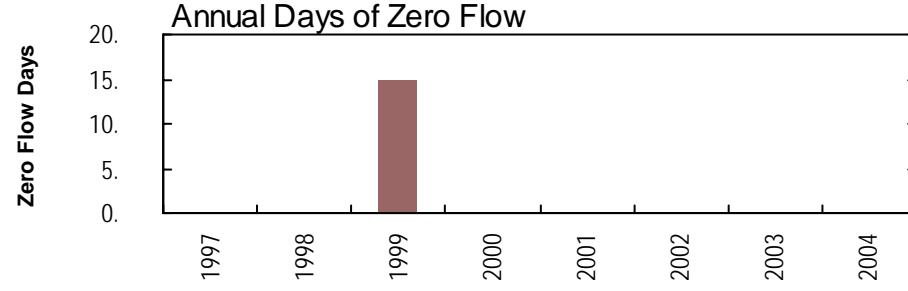
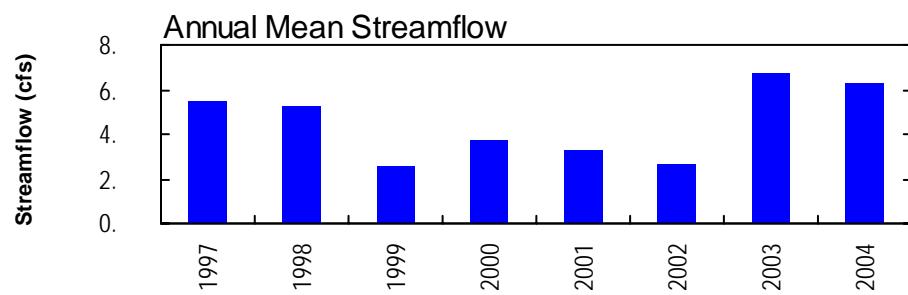
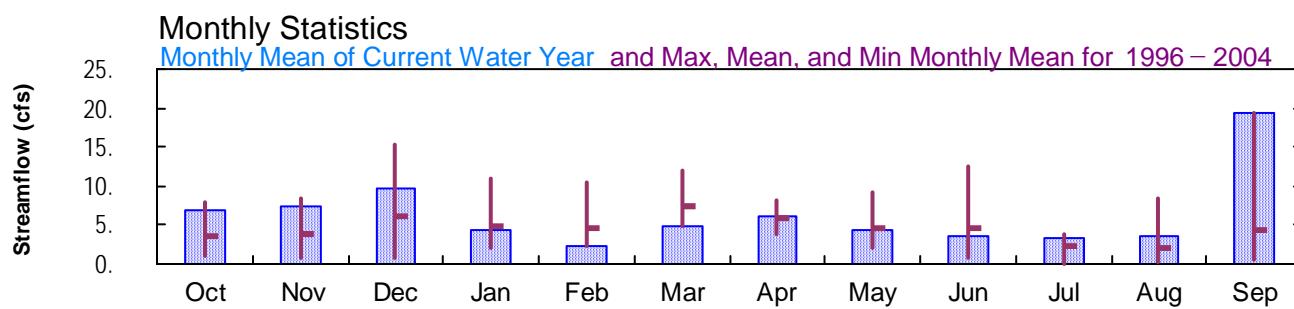
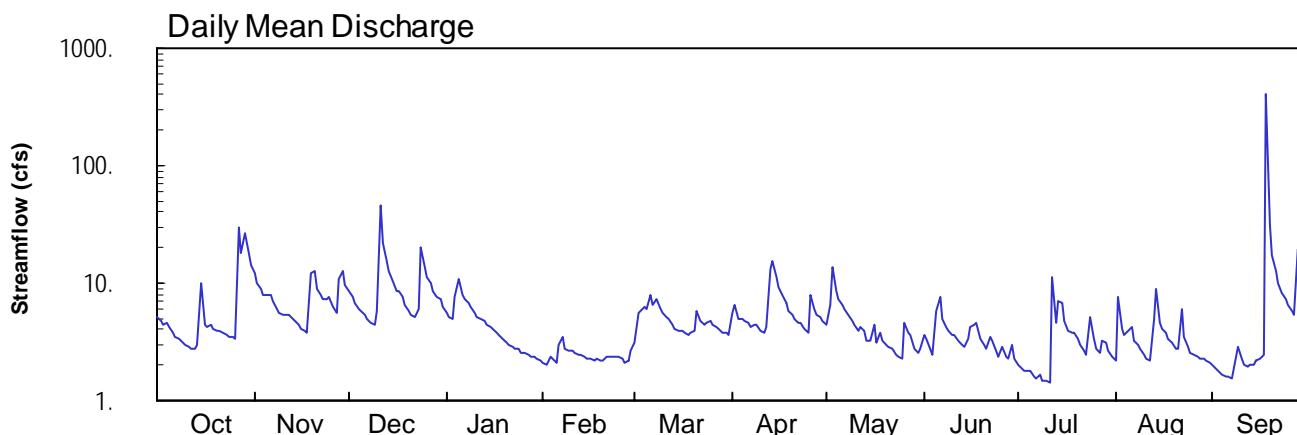
2004 Water Year
 SWATARA CREEK BASIN

0157155014 Swatara Creek, Site C3, at Newtown, PA
Latitude: $40^{\circ}39'28''$ Longitude: $076^{\circ}20'43''$

Hydrologic Unit Code: 02050305

Schuylkill County

Datum: 900. feet

Drainage Area: 2.92 mi²

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA (Swatara Creek Project)

LOCATION.--Lat 40°39'28", long 76°20'43", Schuylkill County, Hydrologic Unit 02050305, on left bank 500 ft downstream from bridge on U.S. Highway 209. Located on Swatara Coal Company property.

DRAINAGE AREA.--2.92 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 900 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those above 44 ft³/s and those for estimated daily discharges, which are poor. Diversion upstream from station by limestone treatment system used to aid in the remediation efforts of acid mine drainage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge	Gage Height	Date	Time	Discharge	Gage Height
		ft ³ /s	(ft)			ft ³ /s	(ft)
Oct. 27	1345	69	2.14	Sept. 18	0600	*483	*a3.60
Dec. 11	1030	91	2.29				

a From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	12	8.6	5.6	2.1	3.1	5.5	4.4	3.6	2.0	2.2	2.0
2	4.7	10	7.7	5.2	2.0	5.5	6.6	6.5	3.4	1.9	7.6	1.9
3	4.3	8.8	6.8	5.0	2.4	5.7	5.0	14	2.7	1.8	4.1	1.7
4	4.5	7.9	6.1	7.6	2.3	6.2	5.0	8.6	2.5	1.8	3.7	1.7
5	4.2	8.0	5.8	11	2.1	6.0	4.8	7.4	5.7	1.8	3.9	1.6
6	3.8	7.8	5.4	8.0	3.0	7.9	4.5	6.5	7.5	1.6	4.3	1.6
7	3.5	7.0	5.0	7.2	3.5	6.5	4.3	6.0	4.9	1.5	3.2	1.5
8	3.4	6.1	4.7	6.7	2.8	7.4	4.4	5.3	4.3	1.7	2.9	1.9
9	3.2	5.7	4.3	6.3	2.7	6.1	4.4	4.8	3.8	1.5	2.7	2.9
10	3.0	5.4	5.7	5.6	2.6	5.6	3.9	4.5	3.7	1.5	2.5	2.2
11	2.9	5.3	45	5.2	2.6	5.2	3.7	4.0	3.6	1.4	2.3	2.0
12	2.8	5.3	22	5.0	2.5	4.9	4.2	4.2	3.3	11	2.2	2.0
13	2.8	5.0	15	4.7	2.4	4.5	13	4.0	3.0	4.6	4.9	2.0
14	3.0	4.7	13	4.4	2.4	4.1	15	3.3	2.8	7.1	9.0	2.0
15	10	4.4	10	4.2	2.3	3.9	11	3.2	3.3	6.7	4.5	2.2
16	4.4	4.1	8.4	4.0	e2.3	4.0	9.3	4.3	4.3	4.7	4.1	2.3
17	4.2	3.9	8.7	3.7	2.2	3.8	7.9	3.1	4.4	3.9	3.7	2.5
18	4.4	3.8	7.6	3.6	2.2	3.7	6.7	3.7	4.6	3.7	3.4	e400
19	4.1	12	6.5	3.3	2.2	3.7	5.9	3.2	3.3	3.8	3.1	31
20	3.9	13	5.8	3.1	2.2	3.9	5.3	3.0	2.9	3.4	2.8	17
21	3.9	9.0	5.4	3.0	2.3	5.8	4.9	2.9	2.7	3.0	2.8	13
22	3.8	8.0	5.1	2.9	2.4	4.7	4.5	2.7	3.5	2.6	6.1	e10
23	3.7	7.2	5.9	2.8	2.4	4.4	4.5	2.5	3.2	2.4	3.4	8.3
24	3.5	7.4	20	2.7	2.4	4.5	4.1	2.4	2.6	5.2	2.9	7.3
25	3.4	7.7	14	2.6	2.3	4.8	3.8	2.3	2.4	3.4	2.6	6.5
26	3.3	6.2	11	2.5	2.2	4.4	8.0	4.7	2.9	2.7	2.4	5.9
27	30	5.7	9.8	2.5	2.1	4.3	6.1	3.8	2.3	2.6	2.3	5.4
28	18	11	8.6	2.4	2.2	4.0	5.4	3.6	2.3	3.2	2.3	19
29	27	13	7.6	2.3	2.7	3.8	5.1	2.7	2.9	3.1	2.2	15
30	18	9.5	7.3	2.2	---	3.7	4.8	2.5	2.2	2.6	2.2	11
31	14	---	6.2	2.2	---	3.7	---	2.8	---	2.4	2.1	---
TOTAL	210.9	224.9	303.0	137.5	69.8	149.8	181.6	136.9	104.6	100.6	108.4	583.4
MEAN	6.80	7.50	9.77	4.44	2.41	4.83	6.05	4.42	3.49	3.25	3.50	19.4
MAX	30	13	45	11	3.5	7.9	15	14	7.5	11	9.0	400
MIN	2.8	3.8	4.3	2.2	2.0	3.1	3.7	2.3	2.2	1.4	2.1	1.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

MEAN	3.58	3.90	6.08	4.85	4.51	7.37	5.83	4.51	4.59	2.20	2.15	4.41
MAX	7.81	8.40	15.3	10.9	10.4	11.9	8.09	9.19	12.5	3.87	8.50	19.4
(WY)	1997	1997	1997	1998	1998	2003	1998	1998	2003	2003	2003	2004
MIN	1.10	0.86	0.71	1.94	2.41	4.83	3.95	2.05	0.89	0.10	0.26	0.42
(WY)	1999	1999	1999	2002	2004	2004	1999	1999	1999	1999	1999	1998

e Estimated.

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1996 - 2004
ANNUAL TOTAL	2675.3	2311.4	
ANNUAL MEAN	7.33	6.32	
HIGHEST ANNUAL MEAN			4.51
LOWEST ANNUAL MEAN			6.77
HIGHEST DAILY MEAN	45	Dec 11	2.61
LOWEST DAILY MEAN	e1.7	Feb 14, 15	1999
ANNUAL SEVEN-DAY MINIMUM	b1.8	Feb 10	2003
MAXIMUM PEAK FLOW		1.6	0.00
MAXIMUM PEAK STAGE		c483	Sep 18 2004
INSTANTANEOUS LOW FLOW		a3.60	Sep 18 2004
10 PERCENT EXCEEDS	14	1.4	0.00
50 PERCENT EXCEEDS	5.2	Jul 5	Jul 29 1999
90 PERCENT EXCEEDS	2.8	4.1	0.00
		2.2	Jul 27 1999d
			8.9
			3.0
			0.73

a From crest-stage gage.

b Computed using estimated daily discharges.

c From rating curve extended above 44 ft³/s.

d Several days.

e Estimated.

f Also July 7, 9-12, Sept. 7.

SWATARA CREEK BASIN

**0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued
(Swatara Creek Project)**

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1996 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1996 to May 2003.

pH: July 1996 to May 2003.

WATER TEMPERATURE: July 1996 to current year.

INSTRUMENTATION.--Water-quality monitor (in situ system). Automatic pumping sampler for stormflow samples since July 1996. Water temperature taken from in-situ transducer beginning May 2003.

REMARKS.--Specific conductance records rated fair, pH records rated fair except for periods Oct. 26-Nov. 5, and Jan. 9-30, which are poor. The pH probe is subject to fowling from precipitation of iron, adhesion of lime on electrodes, and occasional burial by sediment. Water temperature records rated good except for period May 20-Sept. 30, which is poor. Interruptions in the record were due to malfunctions of the instrumentation. Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 438 microsiemens, Aug. 13, 1999; minimum, 51 microsiemens, July 24, 1997.

pH: Maximum, 8.2, Aug. 20, 2001; minimum, 3.6, Oct. 21-23, 25, Dec. 3, 1996.

WATER TEMPERATURE: Maximum, 23.5°C, July 5, 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 18.5°C, Aug. 4; minimum 0.0°C, many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxi-dation reduction potential, mV (00090)	Tur-bidity, water, unfltrd NTU (61028)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, lab, std units (00403)
OCT 01...	1600	1028	1028	5.3	470	6.0	10.8	99	5.5	5.4
29...	1030	1028	89203	43	437	150	11.0	98	5.0	5.1
JAN 05...	1015	1028	89203	11	229	29	10.5	83	5.4	5.3
MAR 04...	1030	1028	89203	6.4	269	15	12.8	99	5.3	5.4
APR 21...	0930	1028	89203	5.0	428	7.2	11.3	101	5.5	5.2
JUN 03...	0945	1028	89203	2.8	364	12	9.9	94	6.0	5.5
JUL 21...	0930	1028	89203	3.2	400	13	10.3	100	5.4	5.0
SEP 08...	0930	1028	89203	1.6	350	9.0	9.8	100	6.6	6.0
Specif. conductance, µS/cm										
Date	Temper-ature, deg C	Calcium water, mg/L (00010)	Calcium water, unfltrd (00915)	Magnes-ium, water, recoverable, mg/L (00916)	Magnes-ium, water, unfltrd (00925)	Magnes-ium, water, recoverable, mg/L (00927)	Potas-sium, water, recoverable, mg/L (00935)	Potas-sium, water, recoverable, mg/L (00937)	Sodium, water, recoverable, mg/L (00930)	Sodium, water, recoverable, mg/L (00929)
OCT 01...	134	11.0	6.40	6.25	4.70	4.65	.760	.745	5.00	4.95
29...	88.0	9.20	4.30	4.20	3.20	3.20	1.30	1.30	4.80	4.90
JAN 05...	95.0	4.60	4.90	4.80	3.30	3.10	1.20	1.20	5.50	5.20
MAR 04...	97.0	3.75	4.90	4.90	3.40	3.50	.900	1.00	5.10	5.20
APR 21...	140	9.30	7.30	7.40	5.60	5.60	.900	.800	6.00	6.10
JUN 03...	124	12.2	7.40	7.50	4.90	5.10	.800	1.00	6.40	6.50
JUL 21...	171	14.3	9.50	9.90	8.20	8.40	.900	.900	6.00	5.90
SEP 08...	161	15.3	10.8	10.5	8.40	8.40	1.00	1.00	6.90	7.10

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	ANC, wat unf fixed end pt, lab, heated, unfltrd mg/L as CaCO ₃ (00417)	Acidity mg/L as CaCO ₃ (70508)	Chlor- ide, water, filtrd, mg/L (00940)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L (00955)	Silica, water, unfiltrd mg/L (00956)	Sulfate water, filtrd, mg/L (00945)	Sulfate water, unfiltrd mg/L (00946)	Nitrate water, filtrd, mg/L as N (00618)	Nitrite water, filtrd, mg/L as N (00613)
OCT										
01...	2.60	--	8.43	<.010	6.02	6.02	41.1	48.0	.040	<.030
29...	2.80	--	5.49	<.010	--	--	23.8	--	.090	<.030
JAN										
05...	2.00	--	7.98	<.010	--	--	24.1	--	.130	<.030
MAR										
04...	2.50	--	--	--	--	--	--	--	--	--
APR										
21...	3.20	--	--	9.42	--	--	--	--	--	--
JUN										
03...	2.30	--	10.9	--	--	--	36.8	--	--	--
JUL										
21...	1.20	--	8.77	--	--	--	51.7	--	.060	--
SEP										
08...	2.40	--	10.4	<.010	--	--	53.9	--	.120	<.030
Date	Ortho- phosphate, water, filtrd, mg/L as P (00671)	Phos- phorus, water, filtrd, mg/L (00666)	Phos- phorus, water, unfiltrd mg/L (00665)	Alum- inum, water, recover able, mg/L (01106)	Alum- inum, water, unfiltrd mg/L (01105)	Anti- mony, water, recover able, mg/L (01095)	Anti- mony, water, filtrd, mg/L (01097)	Arsenic water, unfiltrd mg/L (01000)	Arsenic water, filtrd, mg/L (01002)	
OCT										
01...	<.020	<.001	<.001	270	625	<.020	<.020	<.200	<.200	<.200
29...	<.020	--	--	600	1000	--	--	--	--	--
JAN										
05...	<.020	--	--	200	500	--	--	--	--	--
MAR										
04...	--	--	--	300	600	--	--	--	--	--
APR										
21...	--	--	--	400	700	--	--	--	--	--
JUN										
03...	--	--	--	200	700	--	--	--	--	--
JUL										
21...	--	--	--	400	900	--	--	--	--	--
SEP										
08...	<.020	--	--	<100	500	--	--	--	--	--
Date	Barium, water, filtrd, μg/L (01005)	Barium, water, recover able, μg/L (01007)	Beryll- ium, water, filtrd, μg/L (01010)	Beryll- ium, water, unfiltrd μg/L (00998)	Bismuth water, recover able, μg/L (01015)	Bismuth water, filtrd, μg/L (01017)	Bromine water, unfiltrd mg/L (71871)	Cadmium water, filtrd, μg/L (01025)	Cadmium water, unfiltrd μg/L (01027)	
OCT										
01...	32.5	32.0	.340	.500	<.010	<.010	.070	.230	.220	
29...	--	--	--	--	--	--	.070	--	--	
JAN										
05...	--	--	--	--	--	--	.040	--	--	
MAR										
04...	--	--	--	--	--	--	--	--	--	
APR										
21...	--	--	--	--	--	--	42.7	--	--	
JUN										
03...	--	--	--	--	--	--	--	--	--	
JUL										
21...	--	--	--	--	--	--	--	--	--	
SEP										
08...	--	--	--	--	--	--	--	.060	--	

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Cerium, water, filtrd, µg/L (01110)	Cerium, water, unfiltrd µg/L (01112)	Cesium, water, filtrd, µg/L (01115)	Cesium, water, unfiltrd µg/L (01117)	Chrom- ium, water, filtrd, µg/L (01030)	Chrom- ium, water, unfiltrd recover- able, µg/L (01034)	Cobalt water, filtrd, µg/L (01035)	Cobalt water, unfiltrd recover- able, µg/L (01037)	Copper, water, filtrd, µg/L (01040)	Copper, water, unfiltrd recover- able, µg/L (01042)
OCT										
01...	1.60	1.80	.028	.026	<1.00	<1.00	14.5	14.0	2.90	3.30
29...	--	--	--	--	--	--	--	--	--	--
JAN										
05...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
JUN										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
21...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	--	--	--	--	--	--	--	--	--	--
Date	Dyspros- ium, water, filtrd, µg/L (82331)	Dyspros- ium, water, unfiltrd µg/L (82330)	Erbium, water, filtrd, µg/L (50573)	Erbium, water, unfiltrd µg/L (01246)	Euro- rium, water, filtrd, µg/L (50574)	Europ- ium, water, unfiltrd µg/L (01236)	Gado- linium, water, filtrd, µg/L (50575)	Gado- linium, water, unfiltrd µg/L (01219)	Gallium water, filtrd, µg/L (01120)	Gallium water, unfiltrd µg/L (01122)
OCT										
01...	.120	.160	.069	.098	.028	.038	.130	.170	<.020	<.020
29...	--	--	--	--	--	--	--	--	--	--
JAN										
05...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
JUN										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
21...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	--	--	--	--	--	--	--	--	--	--
Date	German- ium, water, filtrd, µg/L (01125)	German- ium, water, unfiltrd µg/L (01127)	Holmium water, filtrd, µg/L (50577)	Holmium water, unfiltrd µg/L (01247)	Iron, water, filtrd, µg/L (01046)	Iron, water, unfiltrd recover- able, µg/L (01045)	Lantha- num, water, filtrd, µg/L (01180)	Lantha- num, water, unfiltrd µg/L (01182)	Lead, water, filtrd, µg/L (01049)	Lead, water, unfiltrd recover- able, µg/L (01051)
OCT										
01...	<.020	<.020	.027	.033	340	605	.890	.980	.310	.650
29...	--	--	--	--	310	850	--	--	--	--
JAN										
05...	--	--	--	--	390	570	--	--	--	--
MAR										
04...	--	--	--	--	140	280	--	--	--	--
APR										
21...	--	--	--	--	360	650	--	--	--	--
JUN										
03...	--	--	--	--	100	450	--	--	--	--
JUL										
21...	--	--	--	--	60.0	370	--	--	--	--
SEP										
08...	--	--	--	--	80.0	300	--	--	--	--

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Thulium water, fltrd, µg/L (50587)	Thulium water, unfltrd, µg/L (01245)	Tung- sten, fltrd, µg/L (01155)	Tung- sten, unfltrd, µg/L (01154)	Vanad- ium, water, fltrd, µg/L (01085)	Vanad- ium, water, unfltrd, µg/L (01087)	Ytterb- ium, water, fltrd, µg/L (01194)	Ytterb- ium, water, unfltrd, µg/L (01196)	Yttrium water, fltrd, µg/L (01201)	Yttrium water, unfltrd, µg/L (01203)
OCT 01...	.010	.015	.040	.031	<.100	<.100	.067	.091	.620	.770
29...	--	--	--	--	--	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	--	--	--	--
MAR 04...	--	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--
JUL 21...	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--	--	--	--
					Zinc, water, unfltrd µg/L (01090)	Zinc, water, recover -able, µg/L (01092)	Uranium natural water, filtrd, µg/L (22703)	Uranium natural water, unfiltrd µg/L (28011)		
OCT 01...		70.5	70.5		.038		.053			
29...		53.0	54.0		--		--			
JAN 05...		51.0	53.0		--		--			
MAR 04...		50.0	50.0		--		--			
APR 21...		80.0	95.0		--		--			
JUN 03...		70.0	65.0		--		--			
JUL 21...		49.0	53.0		--		--			
SEP 08...		80.0	75.0		--		--			

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.0	10.0	10.5	11.5	9.5	10.5	7.0	5.5	6.5	4.5	3.5	4.0
2	10.0	9.0	9.5	12.0	10.5	11.5	5.5	3.5	5.0	5.5	3.5	4.5
3	9.5	7.5	8.5	12.5	10.5	11.5	4.0	3.0	3.5	7.0	5.0	6.0
4	9.5	9.0	9.0	12.5	10.5	11.5	4.5	2.5	3.5	7.0	5.0	6.5
5	9.5	8.0	8.5	11.5	11.0	11.5	4.0	2.5	4.0	5.0	4.5	5.0
6	9.0	7.0	8.0	11.5	11.0	11.5	3.0	2.0	2.5	4.5	2.0	3.5
7	9.5	6.5	8.0	11.0	9.0	10.0	2.5	1.5	2.0	2.0	1.5	1.5
8	11.0	8.0	9.5	9.0	5.5	7.5	3.0	1.5	2.0	2.5	1.5	2.0
9	12.0	9.5	10.5	6.0	4.5	5.5	3.5	2.5	3.0	2.5	0.0	1.5
10	13.0	10.5	11.5	6.0	3.5	5.0	4.5	3.0	4.0	0.0	0.0	0.0
11	12.5	10.5	11.5	7.0	4.5	5.5	6.0	4.5	5.5	1.0	0.0	0.5
12	12.5	10.0	11.0	9.0	7.0	8.0	5.5	5.0	5.5	2.5	1.0	2.0
13	12.0	10.5	11.5	9.0	5.5	7.5	5.0	4.5	4.5	3.0	1.0	2.5
14	11.0	9.5	10.5	6.0	5.0	5.5	4.5	3.0	3.5	1.0	0.0	0.0
15	11.5	9.5	11.0	7.0	5.5	6.0	4.5	3.0	4.0	0.0	0.0	0.0
16	10.0	8.5	9.5	7.0	5.5	6.5	4.5	3.0	4.0	0.0	0.0	0.0
17	9.5	9.0	9.5	8.0	7.0	7.5	5.0	3.5	4.5	0.5	0.0	0.0
18	9.5	8.0	9.0	8.0	6.5	7.0	3.5	3.0	3.0	1.5	0.5	1.0
19	10.5	8.5	9.0	11.0	8.0	9.5	4.0	3.0	3.5	1.0	0.5	0.5
20	9.5	7.0	8.5	9.5	7.5	8.5	3.5	2.5	3.0	1.0	0.0	0.5
21	11.5	9.0	10.0	9.0	7.0	8.0	3.0	2.0	2.5	1.0	0.0	0.5
22	10.5	8.0	9.5	9.0	7.5	8.0	4.5	2.5	3.5	1.5	0.0	0.5
23	8.0	6.0	7.0	9.0	7.0	8.0	5.0	4.0	4.5	0.0	0.0	0.0
24	7.5	5.5	6.5	9.0	6.5	8.0	5.0	4.5	4.5	0.0	0.0	0.0
25	8.5	5.5	7.0	6.5	5.5	6.0	5.0	4.0	4.5	0.0	0.0	0.0
26	10.5	8.0	9.5	6.5	5.0	5.5	5.0	4.0	4.5	0.0	0.0	0.0
27	11.5	9.5	11.0	7.0	5.5	6.5	5.0	4.0	4.5	0.5	0.0	0.0
28	9.5	8.5	9.0	9.0	7.0	7.5	5.0	3.5	4.0	0.5	0.0	0.5
29	9.5	9.0	9.5	7.0	6.0	6.0	5.0	3.5	4.5	0.5	0.0	0.5
30	10.0	8.5	9.0	6.5	6.0	6.0	5.0	4.0	4.5	0.5	0.0	0.0
31	10.5	8.5	9.5	---	---	---	4.5	3.5	4.0	0.0	0.0	0.0
MONTH	13.0	5.5	9.4	12.5	3.5	7.9	7.0	1.5	4.0	7.0	0.0	1.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.0	0.0	0.0	3.5	1.5	2.5	6.5	6.0	6.0	13.5	10.0	11.5
2	1.0	0.0	0.5	4.5	2.5	3.0	6.0	5.5	6.0	13.0	11.5	12.0
3	0.5	0.0	0.0	5.0	2.5	3.5	6.0	5.5	5.5	12.5	9.0	10.5
4	1.5	0.5	1.0	4.5	3.5	4.0	5.5	3.5	5.0	10.0	7.5	9.0
5	1.0	0.0	0.5	5.0	4.0	4.5	5.5	2.5	3.5	10.0	8.0	9.0
6	0.5	0.0	0.0	6.5	4.5	5.5	6.0	2.5	4.0	11.5	7.5	9.5
7	1.5	0.5	1.0	6.0	4.0	5.0	8.5	4.5	6.5	12.5	10.0	11.0
8	0.5	0.0	0.0	5.0	4.0	4.5	6.0	4.5	5.5	11.5	9.5	10.5
9	1.0	0.0	0.5	4.0	3.0	3.5	8.0	5.0	6.5	12.5	9.0	10.5
10	2.5	1.0	1.5	4.5	3.0	3.5	8.5	4.0	6.5	14.0	10.5	12.0
11	2.0	0.5	1.5	5.5	2.5	4.0	6.0	5.0	5.5	14.5	11.5	13.0
12	2.0	0.0	1.0	4.5	2.5	3.5	6.5	5.5	5.5	14.5	12.0	13.0
13	2.5	1.0	1.5	4.0	2.0	3.0	6.0	5.0	5.5	15.0	12.5	13.5
14	2.0	0.5	1.0	3.5	1.5	2.5	6.5	6.0	6.5	14.5	13.0	13.5
15	1.5	0.0	0.5	6.0	3.0	4.5	8.0	5.5	6.5	15.5	12.5	14.0
16	0.0	0.0	0.0	3.5	1.0	2.0	8.5	5.0	6.5	15.0	13.0	14.0
17	0.5	0.0	0.0	3.5	1.5	2.0	10.5	6.5	8.0	14.0	12.0	13.0
18	1.5	0.0	0.5	4.5	1.5	2.5	12.0	8.0	10.0	15.0	13.5	14.0
19	2.5	0.0	1.0	4.0	1.5	2.5	12.5	8.5	10.5	14.0	13.0	13.5
20	3.0	0.5	1.5	5.0	1.0	3.0	12.0	9.5	10.5	13.0	12.0	12.5
21	3.0	1.5	2.0	4.5	2.5	3.5	12.0	9.0	10.0	14.5	12.5	13.5
22	3.0	1.0	1.5	3.5	1.0	2.0	12.5	9.5	11.0	16.0	13.5	14.5
23	3.0	0.5	1.5	4.5	0.5	2.5	11.0	10.0	10.5	17.0	14.0	15.5
24	1.5	0.5	1.5	5.5	2.0	3.5	12.5	9.0	10.5	16.5	14.5	15.5
25	2.0	0.0	0.5	5.5	4.0	4.5	9.5	8.0	8.5	16.0	14.0	15.0
26	2.0	0.0	1.0	8.0	4.5	6.0	9.5	8.0	8.5	15.0	14.0	14.5
27	3.0	0.0	1.5	9.0	6.5	7.5	10.5	8.0	9.0	15.0	14.0	14.5
28	3.5	0.0	1.5	9.5	6.5	7.5	9.5	6.0	8.0	15.0	13.5	14.5
29	4.5	1.0	2.5	8.5	5.5	7.0	12.0	7.0	9.5	13.5	11.5	12.5
30	---	---	---	6.0	4.5	5.0	12.5	8.5	10.5	13.5	10.0	11.5
31	---	---	---	7.0	5.0	6.0	---	---	---	12.5	12.0	12.0
MONTH	4.5	0.0	0.9	9.5	0.5	4.0	12.5	2.5	7.5	17.0	7.5	12.7

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004